

%% Sentence level

s --> np(A),vp(decl,A). % the cat eats + ...

s --> [there], be(A), np(A). % there are cats, there is a cat

%% Preposition level

pp --> prep,np(_). % on the street

%% Noun phrase group?

% agreement with verb needed:

np(A) --> n(A). % tea, milk, dogs

np(A) --> a(pos),n(A). % brown dogs, old milk, hot tea

np(A) --> det(A),n(A). % a dog, two dogs

np(A) --> det(A),a(pos),n(A). % a brown dog, two brown dogs

% no agreement with verb needed:

np --> n(_). % dogs, tea, milk

np --> a(pos),n(_). % brown dogs, old milk, hot tea

np --> det(A),n(A). % a dog, two dogs

np --> det(A),a(pos),n(A). % a brown dog, two brown dogs

%% Verb level

% Without object (zonder lijdend voorwerp)

vp(decl,A) --> iv(decl,A). % sleeps

vp(decl,A) --> iv(decl,A),pp. % sleeps on a couch

vp(decl,A) --> tv(decl,A). % drinks

vp(decl,A) --> tv(decl,A),pp. % drinks on a couch

vp(decl,A) --> dtv(decl,A). % writes

vp(decl,A) --> dtv(decl,A),pp. % writes on a couch

% With object (met lijdend voorwerp)

vp(decl,A) --> tv(decl,A),np. % drinks milk

vp(decl,A) --> tv(decl,A),np,pp. % drinks on a couch

vp(decl,A) --> dtv(decl,A),np. % writes a letter

vp(decl,A) --> dtv(decl,A),np,pp. % writes a letter on a couch

% With two objects (met meewerkend voorwerp en lijdend voorwerp)

vp(decl,A) --> dtv(decl,A),np,np. % writes the boy a card

vp(decl,A) --> dtv(decl,A),np,np,pp. % writes the boy a card on the couch

% Replace 'sleeps' by 'is sleeping'

iv(decl,A) --> be(A),iv(prepare). % is sleeping (instead of sleeps)

tv(decl,A) --> be(A),tv(prepare). % is drinking (instead of drinks)

dtv(decl,A) --> be(A),dtv(pre). % is writing (instead of writes)

% Passive sentences

vp(decl,A) --> be(A),tv(pstp),[by],np. % is chased by a dog

vp(decl,A) --> be(A),tv(pstp),[by],np,pp. % is chased by a dog on the street

vp(decl,A) --> be(A),dtv(pstp),[by],np. % is written by a man

vp(decl,A) --> be(A),dtv(pstp),[by],np,pp. % is written by a man on the street

vp(decl,A) --> be(A),tv(pstp). % is chased

vp(decl,A) --> be(A),tv(pstp),pp. % is chased on the street

vp(decl,A) --> be(A),dtv(pstp). % is written

vp(decl,A) --> be(A),dtv(pstp),pp. % is written on the street

vp(decl,A) --> be(A),[being],tv(pstp),[by],np. % is being chased by a dog

vp(decl,A) --> be(A),[being],tv(pstp),[by],np,pp. % is being chased by a dog on the street

vp(decl,A) --> be(A),[being],dtv(pstp),[by],np. % is being written by a man

vp(decl,A) --> be(A),[being],dtv(pstp),[by],np,pp. % is being written by a man on the street

vp(decl,A) --> be(A),[being],tv(pstp). % is being chased

vp(decl,A) --> be(A),[being],tv(pstp),pp. % is being chased on the street

vp(decl,A) --> be(A),[being],dtv(pstp). % is being written

vp(decl,A) --> be(A),[being],dtv(pstp),pp. % is being written on the street

% Other cases

vp(decl,A) --> be(A),a(pos). % is red, are large

vp(decl,A) --> be(A),a(com),[than],np. % the cat is bigger than...

%% Lexical

% Verbs

% M: Mood (difference between walking, walk, walked)

% decl: declarative mood (Dutch: persoonsvorm): swims or swim

% base: (Dutch: stam): the infinitive???

% prep: present participle (writing)

% pstp: past participle (written)

%

% ---

% A: Agreement (walks vs walk)

% sg: 3rd person singular (walks)

% pl: plural, so not 3rd person singular (walk)

% We don't need first and second person (I, we, you), so this may be sufficient

iv(pre) --> [writing].
iv(decl,sg) --> [writes].
iv(decl,pl) --> [write].
iv(pstp) --> [written].

tv(pre) --> [riding].
tv(decl,sg) --> [rides].
tv(decl,pl) --> [ride].
tv(pstp) --> [ridden].

dtv(pre) --> [sending].
dtv(decl,sg) --> [sends].
dtv(decl,pl) --> [send].
dtv(pstp) --> [sent].

dtv(pre) --> [writing].
dtv(decl,sg) --> [writes].
dtv(decl,pl) --> [write].
dtv(pstp) --> [written].

% the verb 'to be'
be(sg) --> [is].
be(pl) --> [are].

% noun group?
det(_) --> [the]. % both singular and plural
det(sg) --> [a]. % only singular
n(sg) --> [bicycle].
n(pl) --> [bicycles].
n(sg) --> [man].
n(pl) --> [men].
n(sg) --> [dog].
n(pl) --> [dogs].

% Other things
a(pos) --> [large].
a(pos) --> [green].
a(com) --> [larger].
a(com) --> [greener].

prep --> [with].
prep --> [on].

prep --> [under].

% Useful commands:

% ['group_VG']. % load group_VG

% make. % something like: reload the file.

% s(X, []). % After using a ; the next possible sentence is displayed.

% G = [_,_,_,_,_],s(G,[]). % Gives a sentence of 6 elements: use ; to display a next sentence.

% G = [the,man,_,a,_],s(G,[]). % Gives a sentence of 6 elements, with fixed elements.